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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/388,831	09/01/1999	GREGORY EUGENE BORCHERS	8371-30	4488
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MARGER JOHNSON & MCCOLLOM PC 1030 SW MORRISON STREET PORTLAND, OR 97205				
			EXAMINER AN, SHAWN S	
			ART UNIT 2613	PAPER NUMBER 14

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/388,831

Applicant(s)

BORCHERS, GREGORY EUGENE

Examiner

Shawn S An

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 12, 14-16, 36, 37 and 43-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12, 14-16, 36, 37 and 43-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

1. The request filed on 5/13/04 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/388,831 is acceptable and a RCE has been established. An action on the RCE follows.

Response to Amendment

2. As per Applicants' instructions in Paper 13 as filed on 5/13/04, claims 1, 12, 14 have been amended, claims 7-11, 13, 17, 18-35, and 38-42 have been canceled, and claims 43-46 have been newly added.

Response to Remarks

3. Applicant's arguments with respect to amended claims have been considered but are moot in view of the new ground(s) of rejection incorporating the previous prior art references.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yui (5,677,741).

Regarding claim 14, Yui discloses a method for adjusting real time color images encoded in a video signal for producing a display, comprising:

decoding the video signal into at least one original color signal (Fig. 8, 87);

digitizing the original color signal to produce at least one original value (Fig. 7, 78);

generating an adjusted the color signal from the original color signal according to a first transform (Fig. 7, 77) by looking up in a memory an adjust value (Fig. 8, 88);

applying the adjusted signal to the screen (col. 1, lines 48-56) for displaying color images adjusted (Fig. 7, 75) for a type of color blindness;

selecting a set of coordinates for defining a color space (Fig. 4, HOST PROFILE);

selecting a type of color blindness (Fig. 4, 7);

characterizing the selected type of color blindness with respect to the coordinates as at least one discernible region in the color space (Figs 5A-5C);

selecting a color gamut adjustment that maps at least one region outside the discernible region into the discernible region (Fig. 4, DISPLAY PROFILE);

generating the original values and the adjusted values that perform the color gamut adjustment (Col. 4, lines 7-21); and

storing the original values and the adjusted values in a look up table in the memory (Fig. 4, 9 or 10).

Yui discloses contracting a portion of the discernible region, but does not specifically disclose rotating at least a portion of the discernible region.

However, the Examiner takes official notice that rotating a portion of a region is well known in the image processing art.

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a method for adjusting real time color images encoded in a video signal for producing a display as taught by Yui to simply rotate (rather than contract) the portion of region as an alternative efficient way to adjust color regions, thereby providing a better interaction between an user and a screen menu.

Regarding claim 15, the Examiner takes official notice that EPROM is conventional memory device well known in the art. Therefore, it would have been obvious to utilize EPROM as a primary source of data storing device.

Regarding claim 16, Yui discloses contracting a portion of the discernible region

(Fig. 5C).

6. Claims 1-6, 12, 36-37, and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yui (5,677,741) in view of Ueda et al (5,986,642) and Atkinson (5,589,898).

Regarding claim 1, Yui discloses a real time video system for displaying color images that are adjusted from original color images encoded in a video signal, comprising:

a decoder (Fig. 8, 87) for decoding the video signal into at least one original color signal;

a compensation processor (Fig. 7, 80) for receiving the original color signal including a plurality of separate color point remappings, wherein the processor remaps the original color signal into one or more color blind compensated signals by remapping color points for compensating for at least a first type of color blindness; and

display circuitry (6 or 75) for displaying the original color signal and the one or more color blind compensated color signal.

Yui does not specifically disclose displaying the original color signal and the one or more color blind compensated color signals simultaneously.

Yui does not particularly disclose color remapping that are non-modifiable by a user of the video system, and not customized by the user.

However, Ueda et al teaches color adjustment device including a display circuitry for displaying the original color signal and the adjusted color signal simultaneously (col. 1, lines 29-40).

Atkinson teaches that the invention automatically take affirmative steps to alter the screen colors presented to the user to take account of any perception deficiencies revealed by the test (col. 2, lines 42-52). In other words, Atkinson teaches color remappings that are non-modifiable by a user and not customized by the user (automatic adjustment of screen colors, customized by the apparatus) after the color vision test by the user. Therefore, the transform is non-modifiable and non-customized by the user after the vision test by the user. Furthermore, Applicant's invention lets the

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user to simply select a preferred color remappings. Likewise, Atkinson teaches initially giving a user vision test, and then thereafter, provides a preferred color remappings corresponding to user's vision test results.

Atkinson further teaches color vision deficiency correction system including automatic adjustment of color computer displays to settings that are optimal for certain such deficiencies (abs.). In other words, Atkinson teaches color remapping that are non-modifiable by a user (automatic adjustment) of the video system.

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a real time video system for displaying color images that are adjusted from original color images as taught by Yui to incorporate the well known concept of displaying the original color signal and the adjusted color signal simultaneously as taught by Ueda et al so that the observer can easily analyze the difference between the original color image and the adjusted color image, thereby determining an amount of color adjustment data, and further incorporate the Atkinson's teaching so as to display settings that are optimal for color blind people.

Regarding claim 2, Yui discloses a processor (7), for outputting two color blind compensated signals for compensating for the first and a second type of color blindness, and means for selecting to output one of the first and the second adjusted color signals (col. 4, lines 7-24).

Regarding claim 3, Yui discloses series of ordered sets of original samples, wherein the adjusted color signal is associated with a series of ordered sets of samples according to a first color adjustment predefined for first type of color blindness (9 or 88) as specified.

Regarding claim 4, Yui discloses memory (9 or 88) coupled with the processor and having stored therein the sets of original values and the first set of adjusted values.

Regarding claim 5, Yui discloses means for combining the original samples of a single ordered set thereby generating a single sample for inputting into the memory as an address (12, 7) as specified.

Regarding claim 6, Yui discloses the memory reading out a single sample for each ordered set of original samples, and the means for extracting sample output by the memory an ordered set of adjusted samples (col. 3, lines 23-67) as specified.

Regarding claim 36, Yui discloses remapping color points from original signal by using a color look up table (Fig. 4, 9).

Regarding claim 37, Yui discloses remapping color points from original signal by using a color transformation algorithm (Fig. 4, 10).

Regarding claims 12 and 43, Yui discloses a real time video method for adjusting real time color images encoded in a video signal for producing a display, comprising:

- decoding the video signal into at least one original color signal (Fig. 8, 87);
- using a reference color image to generate one reference color signal, and generating an adjusted signal from the reference color signal according a generic transform associated with a tested type of color blindness (Figs. 1-2, 4, and 7);
- applying the adjusted signal to the screen for displaying color images (col. 1, lines 48-56);

- accepting an input from a viewer as to whether the adjusted reference image is desirable, and if the adjusted reference image is desirable, using the tested transform as the first transform (Figs. 1-2, 4, and 7);

- displaying the image that was indicated preferred by the viewer (6).

Yui does not specifically disclose partitioning the screen into a plurality of sections, and wherein the adjusted reference image is displayed in only one of the sections.

Further, Yui does not particularly disclose the transform that are non-modifiable by a user of the display, and the transform not based on input from the user.

However, Ueda et al teaches color adjustment device including a display circuitry for displaying the original color signal (one section) and the adjusted reference color signal (other section) simultaneously (col. 1, lines 29-40).

Atkinson teaches that the invention automatically take affirmative steps to alter the screen colors presented to the user to take account of any perception deficiencies

revealed by the test (col. 2, lines 42-52). In other words, Atkinson teaches color remappings that are non-modifiable by a user and the transform not based on input by the user (automatic adjustment of screen colors, and transform based on vision test by the apparatus) after the color vision test by the user. Therefore, the transform is non-modifiable and the transform not based on input from the user during and after the vision test by the user. Furthermore, Applicant's invention lets the user to simply select a preferred color remappings. Likewise, Atkinson teaches initially giving a user vision test, and then thereafter, provides a preferred color remappings corresponding to user's vision test results.

Atkinson further teaches color vision deficiency correction method including automatic adjustment of color computer displays to settings that are optimal for certain such deficiencies (abs.). In other words, Atkinson teaches the transform that are non-modifiable by a user (automatic adjustment) of the display.

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a real time video system for displaying color images that are adjusted from original color images as taught by Yui to incorporate the well known concept of displaying the original color signal and the adjusted color signal simultaneously as taught by Ueda et al so that the observer can easily analyze the difference between the original color image and the adjusted color image, thereby determining an amount of color adjustment data as desired, and further incorporate the Atkinson's teaching so as to transform settings that are optimal for color blind people.

Regarding claim 44, Yui discloses accepting a signal from the viewer (2).

Regarding claim 45, the Examiner takes official notice that a time based signal is well known in the art. Therefore, if the user doesn't respond a prompt within a specified time limit, then a typical setting will be set back to the default setting.

Regarding claim 46, the Examiner takes official notice that it is considered an obvious feature to accept a time base signal that is automatically generated annually so as to update the signal in annual basis.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Shawn S An whose telephone number is 703-305-0099. The examiner can normally be reached on Flex hours (10).
8. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SSA

Primary Patent Examiner

5/26/04